

## NEW STATE RECORDS FOR TWO TIGER BEETLES (COLEOPTERA: CICINDELIDAE) IN SOUTHERN NEW ENGLAND<sup>1</sup>

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**ABSTRACT:** *Cicindela rufiventris rufiventris* was collected at two sites near New Haven, Connecticut, constituting the first state records of this species. *Cicindela trifasciata ascendens* was collected from Nantucket Island, Massachusetts, representing the first record of this species from New England.

*Cicindela rufiventris* Dejean and *Cicindela trifasciata ascendens* LeConte are two tiger beetles that commonly are collected in the southeastern United States. In the New England states, isolated populations of *C. rufiventris* are known only from Massachusetts (Murray, 1980, Dunn, 1986) and Rhode Island (Davis, 1903). *C. trifasciata* previously has not been recorded north of Atlantic Co., New Jersey (Boyd, 1978). We report here recent collections of both species from southern New England.

### *Cicindela rufiventris* Dejean

Two specimens of *Cicindela rufiventris* Dejean were collected on June 28 and July 18, 1986 at West Rock Ridge State Park (New Haven Co., CT) by D. Comboni. Both beetles were taken within 15 m of the Judges Cave Memorial on bare basaltic rock. The Park preserves a large escarpment of Tertiary basalt west of New Haven. Conditions on each day were sunny with temperatures near 30°C, but neither individual attempted to escape by flying. Later visits to this site in August of 1986, and in July and August of 1987 and 1988, failed to yield additional specimens. One of the two specimens was vouchered to the Peabody Museum of Natural History, Yale University. One additional specimen of *C. rufiventris* was collected from West Rock Ridge State Park in June 1986 by G. Bernard.

On August 21, 1988, T. Schultz collected six adult *C. rufiventris* .2 miles north of the Northford Post Office, New Haven Co., CT. Seven additional specimens were collected one week later on August 28. All the adults were collected along a sloping gravel track on the east bank of Farm River. The bare substrate consisted of reddish cobbles and gravelly sand

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with some exposed basalt and granite. Four voucher specimens were placed in the Peabody Museum collection.

All the specimens from New Haven County were representative of the nominate form and lacked the bold maculation pattern that characterizes *C. rufiventris hentzii* Dejean (Wilson, 1971). The nominate form has been recorded from Berkshire and Worcester Counties in western Massachusetts (J. Shetterly, personal communication) while *C. rufiventris hentzii* is endemic to a narrow, arc-like belt in eastern Massachusetts approximately 10-25 miles north, west and south of Boston, including the Middlesex Fels and Blue Hills Reservations. The next closest sites for *C. rufiventris* that have been published are in northern New Jersey (Boyd, 1978).

This species prefers rocky ledges, outcrops and substrates of crushed rock. It seems likely that its current distribution in southern New England is restricted to isolated, undisturbed exposures of bedrock or glacial deposits of gravel. Additional populations might be found between New Haven and Massachusetts if similar geologic areas are investigated.

### *Cicindela trifasciata ascendens* LeConte

On July 25, 1988, D. Comboni collected one specimen of *Cicindela trifasciata ascendens* LeConte at Maxcy's Pond on Nantucket Island, Nantucket Co., Massachusetts. The specimen was discovered on bare sand along an unvegetated edge of the pond, although 80% of the pond's perimeter was vegetated. It was taken at 4:15 pm on an overcast day with the temperature around 28°C. A few *C. repanda* also were taken at the same place and time. Unfortunately, the lateness of the day and other commitments precluded a search for additional specimens on the island.

*C. trifasciata* is a coastal species that is widely distributed in the southeastern U.S., Mexico, and the Carribean islands. It prefers fresh or saltwater mudflats and shows remarkable vagility in dispersing up coastal river systems (Graves & Pearson, 1973) or between islands (Leng & Mutchler, 1916). *C. trifasciata* is attracted to lights and has been recorded from off-shore oil platforms in the Gulf of Mexico (Graves, 1981; 1982).

The subspecies *C. trifasciata ascendens* is common along the Gulf and south Atlantic Coasts of the U.S., but very rare in the northeast. Boyd (1978) reported that records of this species in southern New Jersey indicate the northern extent of its range but probably do not represent permanent, breeding populations. Nantucket Island is located 30 miles off the southern coast of Cape Cod and is well north and east of these localities. However, other vagrant animal species occasionally land on

Nantucket Island as a result of storms or accident. Given the well documented ability of *C. trifasciata* to disperse long distances over water, its occurrence on Nantucket Island is surprising but not totally unexpected.

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Offers nature enthusiasts and students a general overview of Lepidoptera of world. Subjects covered include: origins, evolution, classification, anatomy, metamorphosis, adult behavior, and ecology.